POE-SW1616
16 Port PoE Network Switch

Quick Installation Guide & User Manual

16-port 10/100M Power over Ethernet Switch (AF Version 15.4W)

Rev 1.01
01/20/2012

Table of Contents

- Introduction …….. Page 2
- Power Over Ethernet (PoE) & Features ……..…….. Page 2
- Unpacking and Installation …… …….. Page 3
- System Requirement……. …….. Page 3
- Hardware Installation… ……. ……..…….. Page 4
- Front /Rear Panel /LED…..…… Page 5
- Connecting Ethernet Cable……. Page 6
- Technical Specification……..... Page 7
- Troubleshooting ……..……..……..……... Page 8

•FCC Warning:

This devices has been tested and found to comply with the regulations for Class B digital equipment. Pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with users guide, may cause harmful interference to radio communications. Operation of this devices in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his/her own expense.

•CE Mark Warning:

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

•UL Warning:

1> Elevated Operating Ambient Temperature- If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater then room ambient. Therefore, Consideration should be given to installing the equipment in an environment compatible with manufacturer's maximum rated ambient temperature
2> Reduced Air flow-installation of equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.
3> Mechanical Loading- mounting of the equipment in the rack should be such as that a hazardous Conditions is not achieved due to uneven mechanical loading.

IMPORTANT

This users guide contains information on the limitations regarding product use and function and information on the limitations as to liability of the manufacturer. Read the entire guide carefully

1. Introduction

The POE-SW1616 *16-port 10/100M Ethernet PoE switch* a high efficiency 16-port 10/100Mbps Ethernet switch and a standard 802.3af 16-port Power over Ethernet (PoE) capability. The *16-port 10/100M Ethernet PoE switch* incorporates an internal 48VDC power supply. Each of the PoE Ethernet ports can support 15.4W(AF) Watts of power as well as 10/100M data transmission over the Inter- connecting Ethernet interface such as Cat 5/ 5e /6 cables.

The *16-port 10/100M Ethernet PoE Switch* is a Power Source Equipment (PSE) and fully compatible with Powered Devices (PD) that comply with the IEEE 802.3af PoE standard. The *16-port 10/100M Ethernet PoE switch PoE Switch* enables users to attach IEEE802.3af compliant devices such as wireless Access Points (APS), VOIP phone, IP camera, printer and Network Attached Storage (NAS) directly to the *16-port 10/100 Ethernet PoE* Switch without requiring additional power on the network. The unit was designed with home and small business users in mind and is ideal for installations where AC power is not available or no cost-effective.

No configuration is required and installation is quick and easy. Support for Auto – MDI / MDI-X on all of the ports eliminates the need for crossover connection to another switch or HUB. Auto - Negotiation on each port senses the link speed of a network device (either 10 or 100) and intelligently adjusts for compatibility and optimal performance.

* 1-Year Limited Warranty for switch and 1-Year Limited Warranty for the power adaptor are available
* This device is designed for indoor use. Do not use outdoors.
* included are the installation manual.

2. **Power over Ethernet (PoE) & Features**

•Power Over Ethernet (PoE):

Power over Ethernet (PoE) integrates 48VDC power and data onto one single cable, eliminating the need to have AC power available at all equipment locations. Power and Data are integrated onto the same cable, supporting category 5/5e up to 100 Meters. PoE provides power to PoE compatible devices, such as VOIP telephones, wireless LAN access points, and IP security cameras.
PoE devices are readily in the market, saving up to 50% of overall installation cost by eliminating the need to install separate electrical wiring and power outlets.

•Features:

- 16 x 10/100Mbps Auto-negotiation Fast Ethernet RJ-45 ports with 16-Port PoE function (port 1 ~ port 16)
- Compliant with IEEE 802.3af(AF Version)
- Supports PoE power up to 300W (AF Version) for all PoE ports.
- Supports PoE IEEE802.3af compliant Powered Device (PD)
- Each port supports auto MDI/MDIX, so there is no need to use cross-over cables.
- Full/half duplex transfer mode for each port.
- Wire speed reception and transmission.
- Up to 4K unicast address entities per device. Self-learning, and table aging.
- 64KBytes packet buffer.

3. Unpacking and Installation

Open the shipping cartons of the *16-port 10/100M Ethernet PoE Switch* and carefully unpack its contents. The cartons should Included following items:

- One *16-port 10/100M Rack Mount Ethernet PoE switch*
- One AC power cord
- Four rubber feet with adhesive backing.
- Mounting kit (two brackets and screws)
- Quick Installation Guide.

If any item is found missing or damaged,
please contact your local reseller for replacement.

4. System Requirements

•**Installation:**

The installation of the *16-port 10/100M Ethernet PoE Switch* requires the following steps:

- A computer with a 10/100Base-T network adapter installed
- The surface must support at least 6.0Kg (13.2 lbs) for the switch.
- The power outlet should be within 1.5 meters (5 feet) of the switch.
- Visually inspect the AC power cord and make sure that is fully secured to the power outlet.
- Make sure that there is proper heat dissipation from and adequate ventilation around the switch. Do not place heavy objects on the switch.

5. Hardware Installation

A: Connect the AC Power Cord to the16-port 10/100M Ethernet PoE switch and then to a power outlet.

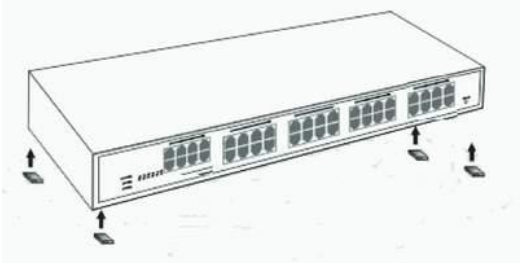
AC power Outlet

AC Power Cord

B: Connect a CAT-5, CAT-5e or CAT-6 RJ-45 network cable from the computer to an available Ethernet port on the 16-port 10/100M Ethernet PoE switch.

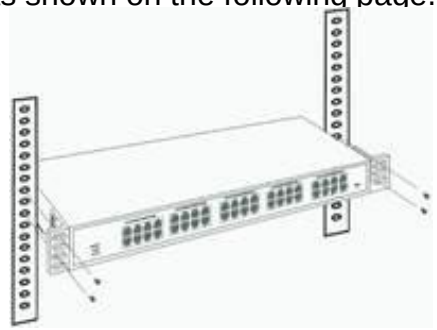
C: Installing 16-port 10/100M Ethernet PoE switch on a Desktop:

When installing the 16-port 10/100M Ethernet PoE switch on a desktop or shelf, the rubber feet Included with the 16-port 10/100M Ethernet PoE switch should first be attached. Attach these cushioning feet on the bottom at each corner of the device.



D: Installing the 16-port 10/100M Ethernet PoE switch on a 19" Rack:

Fasten the mounting brackets to 16-port 10/100M Ethernet PoE switch using the screws provided. With the brackets attached securely, you can mount 16-port 10/100M Ethernet PoE switch series in a standard rack as shown on the following page.

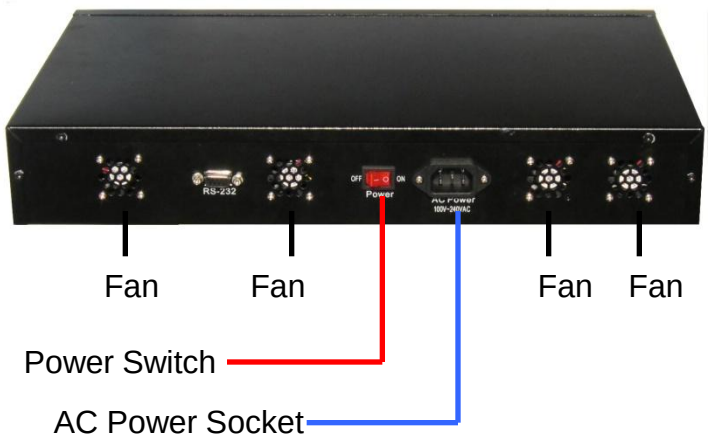


6. Front Panel/LED/PoE Network

Front Panel

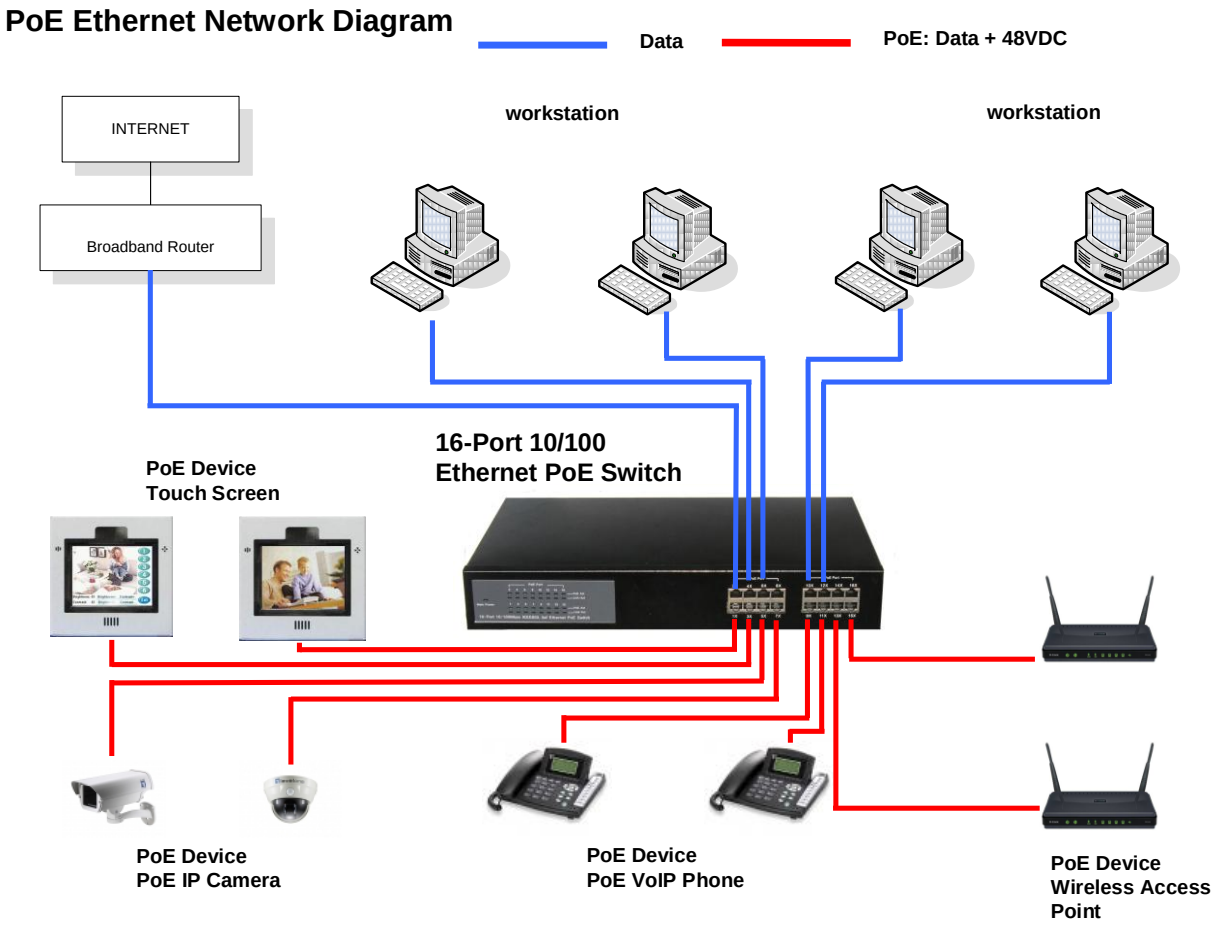
Power LED	LED on: Power ON / LED off: Power off.
LINK/ACT LED	LED on: this port is Link and Active
	LED off: this port is not correct Link or inactive
PoE (1 to 16) LED	LED on: The PoE power device (PD) is connected and the port is supplying power successfully
	LED off: no PoE power device (PD) connected
PoE (1 to 16) Port	10/100MBase-T Ethernet PoE Port 1 – Port 16. 8P8C RJ-45.

Rear Panel



Cooling Fan	DC5V cooling fan
Power Switch	Power ON/OFF Switch
AC Power Socket	AC Power Input Socket

6. Connecting Ethernet Cables



7. **Technical Specifications**

Standard	IEEE 802.3 10BASE-T Ethernet
	IEEE 802.3u 100BASE-TX Fast Ethernet
	IEEE 802.3x Full Duplex Flow Control
	IEEE 802.3af Power over Ethernet
Protocol	CSMA/CD
Data Transfer Rate	Ethernet: 10Mbps (half-duplex), 20Mbps (full-duplex)
	Fast Ethernet: 100Mbps (half-duplex), 200Mbps (full-duplex)
Network Cables	10BASE-T: 2-pair UTP Cat 3, 4, 5 up to 100 meters.
	100BASE-Tx: 2-pair UTP Cat 5, 5e up to 100 meters.
Number of Ports	16 x 10/100Mbps auto-MDIX RJ-45 ports with 16 PoE enabled ports.
PoE power on RJ-45	Power +: ping 3 & ping 6 : Power –" ping 1 & ping 2
AC to DC power supply	Input: 110V ~ 240VAC, 50Hz ~ 60Hz. Output: 48VDC / 6.25A

Power Consumption	8.0 watts (max with no PD device connected)
	300 watts (16 PoE ports 15.4W/port)
Temperature	Operation: 0℃ ~ 40 ℃ or 32℉ ~ 104 ℉
	Storage Temperature: -10℃ ~ 70 ℃ or 14℉ ~ 158 ℉
Humidity	Relative Humidity: 5% - 95%
Dimensions	430mm W x 266mm D x 66.4mm H
EMI	FCC Class B, CE Mark Class B
Safety	110VAC to 240VAC power supply UL listed.
RAM buffer	64K bytes per device
Filtering Address Table	1K entries per device
Packet Filtering Forwarding Rate	10Mbps Ethernet: 14,880/pps 100Mbps Ethernet: 148,800/pps
MAC address Learning	Automatic update
Transmission Method	Store – and – Forward

8. **Troubleshooting**

1> After connecting the Switch to a power outlet, the LEDs do not turn on.

Check the connection of the power cord to the 16-port 10/100M Ethernet PoE switch and the power outlet check that the power outlet is receiving power.

2> When I connect a computer to the Switch's port, the Link/ACT LED turns on, but the 100Mbps LED remains off.

When the 100Mbps LED is off, the computer's connection speed is 10Mbps.

3> After I connect my PCs to the Switch, I am unable to share files.

1. Check the LEDs on the Switch. Make sure the **Link/ACT LED** is on.
2. Check the network cable. The minimum length of the cable is 1.5 meters and the maximum length of the cable is 100 meters.
3. Disable any software firewall program.
4. Verify that you have file sharing enabled. Please contact your Operating System support for more information.

4> After I connect my PCs to the Switch, I can only get onto the Internet from one computer.

The Switch was not designed to share Internet between multiple computers. You need to get an Internet router such as –port 10/100M Ethernet **Router.**

5> Where is the uplink port located on the Switch?

Since all the ports on the Switch are Auto-MDIX, any of the ports can be used as an uplink port. If you still encounter problems or have any questions regarding the 16-port 10/100M Ethernet PoE switch please contact technical support department.